

Request For Studies

Research, Monitoring, and Evaluation

BONNEVILLE POWER ADMINISTRATION
ENVIRONMENT, FISH & WILDLIFE

March 14, 2003

1. DESCRIPTION OF SOLICITATION

1.1 INTRODUCTION

Background: On December 21, 2000, the National Oceanographic and Atmospheric Administration Fisheries (NOAA Fisheries)¹ issued a Biological Opinion (BiOp) on the Operation of the Federal Columbia River Power System. The Biological Opinion is available on the NOAA Fisheries web site at

<http://www.nwr.noaa.gov/1hydrop/hydroweb/docs/Final/2000Biop.html>. In the BiOp, NOAA Fisheries listed 199 “Actions,” or mitigation measures, that are expected to provide biological benefit to listed fish stocks in the Columbia River Basin.

NOAA Fisheries and the Federal Columbia River Power System (FCRPS) Action Agencies (Bonneville Power Administration, Corps of Engineers, and Bureau of Reclamation) have developed a comprehensive Research, Monitoring, and Evaluation (RME) Program required by the BiOp to track implementation progress. This document is available at the BPA Fish & Wildlife website:

http://www.efw.bpa.gov/EW/FishandWildlifeDocs_Post/RME/rme_plan_draft_03_0203.pdf.

As part of this RME planning effort, the NOAA Fisheries/Action Agency Hatchery/Harvest RME Subgroup (H/H Subgroup) identified several research areas as critical needs or current “gaps” in the successful implementation of the Reasonable and Prudent Alternative (RPA) Actions called for in the BiOp. This document addresses the following two “gaps” identified in the Subgroup’s gap analysis: (1) the need to determine the relative reproductive success of hatchery-origin and natural origin anadromous salmonids in the Columbia Basin (RPA Action 182), and (2) the need to synthesize an analytical approach to determine the effects of hatchery reforms on extinction risk and recovery of threatened and endangered salmon and steelhead populations in the Columbia River Basin (RPA Action 184). Through this programmatic solicitation, BPA intends to implement several projects to fulfill these RPA requirements related to RME that are not actively being addressed through the Bonneville Power Administration’s current implementation program.

The Bonneville Power Administration (BPA) requests studies from individuals or organizations interested in helping BPA implement Reasonable and Prudent Alternatives, Actions 182, and 184, under NOAA Fisheries’ 2000 Biological Opinion on the Operation of the Federal Columbia River Power System. Details on the qualifications required for applicants are provided in Sections 2.1 of this solicitation. If the applicant wishes to submit a proposal addressing more than one Action, separate proposals should be submitted, and each should contain a full application package responding to all of the requirements of this Request for Studies (RFCS) package.

¹ Formerly National Marine Fisheries Service (NMFS)

This programmatic solicitation addresses the following RPA's:

1. FCRPS Biological Opinion Action 182

Action 182 states:

The Action Agencies and NMFS shall work within regional priorities and congressional appropriations processes to establish and provide the appropriate level of FCRPS funding for studies to determine the reproductive success of hatchery fish relative to wild fish. At a minimum, two to four studies shall be conducted in each ESU. The Action Agencies shall work with the Technical Recovery Teams to identify the most appropriate populations or stocks for these studies no later than 2002. Studies will begin no later than 2003.

In order to implement this Action, BPA seeks research proposals from qualified individuals or groups to conduct scientifically sound studies to determine the relative reproductive success of hatchery-origin and natural-origin anadromous salmonids in the Columbia Basin. More background on this Action, including specific criteria that applicants should use to respond, is included in Section 2.2 below.

2. FCRPS Biological Opinion Action 184

Action 184 of the BiOp states that:

The Action Agencies and NMFS shall work within regional prioritization and congressional appropriation processes to establish and provide the appropriate level of FCRPS funding for a hatchery research, monitoring, and evaluation program consisting of studies to determine whether hatchery reforms reduce the risk of extinction for Columbia River basin salmonids and whether conservation hatcheries contribute to recovery.

In order to meet Action 184, BPA seeks research proposals from qualified individuals or groups to conduct scientifically sound studies in the following two areas:

a) Synthesis of Existing Analytical Approaches, or Development of a New Analytical Approach, for Determining the Effects of Hatchery Reforms on Extinction Risk and Recovery.

b) Reproductive Success of Natural-Origin, Hatchery-Origin, and Reconditioned Kelt Steelhead.

More background on this Action, including specific criteria that applicants should use to respond, is included in Section 2.3 below.

1.2 CONTENTS OF THIS REQUEST FOR STUDIES

This Request for Studies (RFCS) consists of a statement of Project Requirements and a Response Format. The statement of Project Requirements describes the features BPA seeks in respondents, the criteria that will be used to evaluate them, and other considerations. The Response Format describes the contents and format required for the responses.

1.3 OBJECTIVES

BPA's objectives in issuing this RFCS are:

- To successfully implement Actions 182, and 184 of the NOAA Fisheries 2000 Biological Opinion on the Operation of the Federal Columbia River Power System.
- To select individuals or organizations qualified to conduct studies that meet the requirements described in the above RPAs.
- To complement studies that may be funded by others to gain knowledge and secure benefits associated with these RPA's beyond that which might otherwise be achieved.
- To ensure that any action taken as a result of this RFCS is effective, and biologically beneficial to species addressed in the BiOp and listed under the Endangered Species Act.

1.4 SOLICITATION SCHEDULE / DEADLINE

The schedule for this RFCS is as follows:

March 13, 2003	Publish Request for Study.
April 11, 2003	Responses are due by 3:00 p.m. Pacific Standard Time.
April 14-25, 2003	Review of Proposals.
May 9, 2003	BPA announces studies that best meet stated objectives. Contract negotiations begin.
June 20, 2003	Implementation of proposals by successful applicants.

To receive consideration, all responses must be received no later than 3:00 PM Pacific Standard Time (PST) on April 11, 2003.

1.5 WHERE TO SEND RESPONSES

On or before April 11, 2003 3:00 PM PST, submit five paper copies and one electronic copy of each response to the address shown below:

Bonneville Power Administration
Attn: Jeff Gislason, KEWR-4
905 NE 11th Street
P.O. Box 3621
Portland, OR 97208-3621

Electronic copies can be submitted in the form of CD or as an email to:

jcgislason@bpa.gov

The file(s) must be in Adobe Portable Document Format (pdf) or compatible with Microsoft Office programs (such as Word). Email files must be less than 3 Megabytes in size.

1.6 WITHDRAWAL AND MODIFICATION OF RESPONSES

Applicants may withdraw their response and submit a revision prior to the response deadline. After the response deadline, changes will not be accepted. Applicants may withdraw their response from consideration at any time.

1.7 COMMUNICATION

All communication with BPA related to this RFP should be sent by email to the Jeff Gislason at jcgislason@bpa.gov.

BPA will notify successful applicants by mail on or before May 9, 2003.

2. PROJECT DESCRIPTION

2.1 THRESHOLD REQUIREMENTS

BPA will consider proposals from any person or organization, including non-governmental organizations, states, tribes, academic institutions, or government agencies. Studies, whether focusing on RPA Actions 182, or 184, must meet the following threshold requirements.

1. Qualifications must be received before the response deadline, adhere to the Response Format, and contain all of the information requested in this RFCS
2. The applicant must demonstrate an ability or potential capacity to fully implement the project.
3. The applicant must document specific skills, abilities, experience, or credibility with key constituents that would allow the applicant to implement the applicant's response.
4. The applicant must be willing to cooperate to the extent requested by BPA in environmental compliance as required by the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), the National Historic Preservation Act (NHPA), and other laws as applicable.
5. Studies must include anticipated total and yearly estimated costs. This is not a request for a detailed cost proposal.
6. Every response must demonstrate its feasibility for implementation by June 2003.
7. Proponents must be able to meet BPA contractual requirements. These requirements can be viewed at website:
<http://webip1/EBR/Contracts/bpi/bpi.htm>

2.2 REQUIREMENTS SPECIFIC TO ACTION 182

Studies to Determine Reproductive Success of Hatchery Spawners

(FCRPS BiOp Action #182)

Solicitation: Research proposals are sought from qualified individuals or groups to conduct scientifically sound studies that focus on the biological question(s) to determine relative reproductive success of natural-origin and wild-spawning hatchery-origin anadromous salmonids in the Columbia Basin. These studies are needed to address scientific uncertainties outlined in Reasonable and Prudent Alternative (RPA) Action 182 of the Federal Columbia River Power System (FCRPS) Biological Opinion of December 2000 (BiOp). Determining the reproductive success of natural-origin and hatchery-origin fish addresses critical uncertainties regarding population status assessment and recovery planning.

Statement of Problem: Anadromous salmonids in the Columbia River Basin are artificially propagated at an extremely large scale to mitigate for development, support fisheries, and/or contribute to recovery. One result of these programs, intentional in some cases and inadvertent in others, is that many populations in the Basin are comprised of both natural-origin and hatchery-origin spawners. Numerous studies conclude that hatchery-origin spawners have lower reproductive success when they spawn in the wild than do natural-origin spawners; how much lower is a matter of continuing scientific study. The causes of the differences, and whether they are avoidable or reversible, also are unknown.

In addition to masking the true status of natural populations, uncertainty regarding the spawning effectiveness of hatchery-origin fish spawning in the wild makes it difficult to estimate the degree of population growth needed to achieve survival and recovery objectives for listed populations, and the suitability of hatchery fish for recovery planning. For example, Table 9-2-4 of the BiOp indicates that the survival improvement necessary to achieve survival and recovery criteria for the listed Snake River steelhead ESU ranges from 44% to 333%, a very broad range largely attributable to the uncertainty associated with the extent and relative reproductive success of hatchery-origin fish spawning in the wild.

The relative reproductive success of hatchery-origin spawners may well be a function of several variables, such as the genetic composition of the hatchery brood stock, differences in genetic fitness between hatchery-origin and natural-origin fish, behavioral differences between hatchery-origin and natural-origin spawners, mating protocols,

differences in run timing between hatchery-origin and natural-origin fish, relative proportions of hatchery-origin and natural-origin adults on the spawning grounds, and/or hatchery rearing and release strategies. In ongoing attempts to reduce deleterious effects and improve positive contributions of hatcheries, some hatchery practices have been modified in recent years (e.g., inappropriate broodstocks have been replaced with more suitable stocks, mating protocols have been established to avoid genetic divergence from the biologically appropriate population, and rearing and release strategies have been changed to reduce or eliminate ecological interactions with natural-origin fish). For the purpose of this solicitation, priority will be given to proposals that study these types of “state of the art” hatchery programs instead of studying outmoded hatchery programs.

Specifics of needed research: Studies must be designed to directly estimate the reproductive success of both hatchery-origin and natural-origin fish spawning naturally in the same population. Pedigree analysis using molecular genetic techniques is likely to be the most robust method to address this issue, but other methods will be considered if they address the questions of interest in a sufficiently thorough manner. Reproductive success needs to be evaluated in terms of the ability of wild-spawning hatchery-origin fish to produce progeny that complete the entire life cycle, i.e., to produce second-generation (F_2) spawners. Comparing hatchery-origin and natural-origin fish from the same population in the same stream will control for confounding variables, such as ocean conditions, harvest, and hydrosystem passage. Studies must be designed to provide data that will improve parameter estimation for hatchery-origin spawning effectiveness in models currently used by NOAA Fisheries during extinction risk assessment. Studies should address the following questions:

- Are there statistically significant differences in reproductive success between natural-origin and hatchery-origin fish when measured at the second generation (F_2)? Do F_1 progeny with HxW parents differ from F_1 progeny with HxH parents in the production of F_2 progeny?
- What are possible hypotheses to explain this difference? For example, can the difference be attributed to reduced genetic fitness of hatchery-origin compared to natural-origin fish? Are differences more significant during any specific life history stages?
- What is the likely effect of any difference, in terms of population growth, population recovery, and genetic diversity/fitness in subsequent generations according to the Viable Salmonid Population (VSP) criteria?

Additional Selection Criteria: Additional criteria for selecting among well-designed and responsive proposals include:

- The degree to which studies are directly applicable to one or more of the following listed ESUs (for which there are currently no reproductive success studies underway): Upper Columbia steelhead, Mid-Columbia steelhead; Snake River fall chinook; and Columbia River chum. Studies not occurring in those ESUs, but with clear applicability to those ESUs will also be considered;

- The degree to which the study is designed (or is capable of being extended) to address whether and to what extent any difference in reproductive success of hatchery spawners persists in subsequent generations (beyond F₂);
- The degree to which proposals may provide information more broadly applicable to multiple species/ESUs identified above;
- Potential to commit to a long-term study (beyond F₂); and
- Overall cost effectiveness

A SEPARATE PROPOSAL SHOULD BE SUBMITTED FOR EACH REPRODUCTIVE EFFECTIVENESS STUDY BEING PROPOSED. (A “study” would involve research on a single wild-spawning population of hatchery-origin and natural-origin steelhead or salmon.)

Timeframe for completion of work: Proponents should provide a schedule of the proposed work, from start-up to completion, with their submittal.

Level of Effort: Anticipated cost for a reproductive effectiveness study at the general desired level of effort is \$200,000 to \$300,000 per year. Implementation of four studies was the intent of this solicitation, but this number could vary, based on the final negotiated costs of the selected proposals.

2.3 REQUIREMENTS SPECIFIC TO ACTION 184

Synthesis of Existing Analytical Approaches, or Development of a New Analytical Approach, for Determining the Effects of Hatchery Reforms on Extinction Risk and Recovery

(FCRPS BIOP Action #184)

Solicitation: This RFCS solicits the technical services of a qualified contractor to develop a standardized analytical approach for evaluating the effects of hatchery reform actions on extinction risk and recovery at the population and Evolutionarily Significant Unit²

² NOAA Fisheries uses ESU to define anadromous salmon and steelhead populations either listed or being considered for listing under the Endangered Species Act (ESA). AN ESU is a population that (1) substantially isolated reproductively from conspecific populations, and 2) represents an important

(ESU) levels, consistent with the purposes of Action 184. Specifically the solicitation calls for studies to determine the efficacy of hatchery reforms in reducing extinction risks and/or contributing to recovery goals.

Statement of Problem: RPA Action 184 calls for research to assess: (1) the efficacy of hatchery reforms in reducing extinction risk, and (2) the efficacy of conservation hatchery activities in contributing to recovery. This RFP is focused on the first of these two topics:

Efficacy of hatchery reforms in reducing extinction risk. Many hatchery reforms are designed to reduce the deleterious ecological, genetic, or management effects of artificial production on listed ESUs using a variety of approaches. For example, to minimize deleterious genetic effects, acclimation ponds are constructed and used to manage unwanted straying and/or increase homing fidelity of hatchery fish. Also, inappropriate brood stocks are replaced and/or hatchery brood stocks are more routinely infused with fish from locally adapted populations. Rearing and release strategies designed to minimize ecological interactions of hatchery juveniles with natural origin fish (e.g., predation, competition) are utilized. Reforms designed to improve survival of hatchery fish produced for fishery mitigation purposes could result in the need to produce less of them to achieve fishery objectives, thereby reducing costs and, potentially the extent of unwanted ecological interaction with juvenile listed fish. (A “menu” of potential hatchery reforms can be found in section 9.6.4.2 of the BIOP.) The challenge in evaluating reforms lies in isolating the effect of the reform in a controlled study and assessing (quantifying) its effect on population viability and the status of the ESU.

Specifics of needed research: Studies are sought from qualified individuals or groups to develop a standardized analytical approach for synthesizing the results and detecting the effects at the population and ESU levels of a myriad of hatchery reforms in terms of their effects on extinction risk and/or recovery. Most studies of hatchery reforms necessarily focus on effects on individual lots of fish at a particular life stage. Therefore, determining the degree to which a reform is expected to reduce extinction risk and result in a positive change in population growth rate (“lambda”) at the much broader population or ESU level will have to rely on a standardized analytical approach developed outside particular studies. The availability of a standardized analytical approach for detecting changes in extinction risk or recovery will facilitate the design and selection of Action 184 effectiveness studies as well as the evaluation of implemented reforms. Analytical models already exist, e.g., population growth rate and extinction risk models, but a synthesized approach for applying these existing models is needed to provide a readily useable “tool” for effective compliance with the intent of Action 184.

Documentation and/or explanatory text for the analytical approach should be sufficient to allow other entities to readily use it to evaluate potential effectiveness of hatchery reform

component of the evolutionary legacy of the species. The term ESU may include portions of combinations of more commonly used definitions of stocks within or across regions.

measures. Proponents should provide a schedule of the proposed work, from start-up to completion with submittal.

Timeframe for completion of work: All work should be completed and a final report delivered to BPA within 9 months of the date of contract award to allow the Action Agencies, NOAA Fisheries, and the H/H Subgroup to begin using the analytical approach in early 2004. Within six months of contract award, the contractor should submit a draft of the final report (containing the contractor's synthesized analytical approach) to BPA and brief BPA, NOAA Fisheries, and the H/H Subgroup on the draft analytical approach. BPA will facilitate technical review by H/H Subgroup and other interested parties and provide reviewers' comments to the contractor within 30 days. A final report, incorporating the contractor's revisions in response to the review comments, should be submitted to BPA within 9 months of contract award. The contractor will also be expected to meet with BPA, the H/H Subgroup, and other interested parties within 30 days of the contract award to provide a briefing on the contractor's plan for synthesizing the analytical approach. There may be a need for the contractor to continue work for up to 12 additional months, at BPA's option and subject to contract negotiation with BPA, to assist BPA and the H/H Subgroup with the application of the analytical approach in implementing Action 184 and 169, including the design of monitoring and evaluation programs for reform actions and development of reform action performance standards related to population growth rate of affected populations. No proposal for this optional work is requested at this time, but applicants should indicate their potential availability for this additional work.

Level of Effort: Anticipated cost for a 9-month project at the general desired level of effort is \$100,000 to \$150,000.

Reproductive Success of Natural-Origin, Hatchery-Origin, and Reconditioned Kelt Steelhead

(FCRPS BiOp RPA Action#184)

Solicitation: This RFCS solicits a study of the relative reproductive success of reconditioned steelhead kelts (an uncertainty not being addressed by ongoing or proposed RME projects) to provide information critical for evaluating the potential benefits of enhancing iteroparity.

Statement of Problem: For depressed steelhead populations in the Columbia and Snake Rivers, increasing the survival of kelts (post-spawning adults) to increase iteroparity (repeat spawning) appears to be a promising conservation tool to reduce extinction risk and aid recovery. Ongoing feasibility studies have shown that kelt survival may be increased by collecting emigrating steelhead at uppermost dams and transporting them to below Bonneville Dam to avoid the nearly total mortality of these fish attempting an

inriver migration through multiple dams and reservoirs. This action is currently being investigated through funding by the Corps of Engineers at Lower Granite Dam. The Corps' research is attempting to quantify the survival of transported steelhead kelts back to Lower Granite Dam compared to those allowed to emigrate naturally.

Additionally, collecting kelts and reconditioning them in hatchery facilities for release back into their respective natal subbasins or below Bonneville Dam may enhance iteroparity. The Columbia River Inter-Tribal Fish Commission in the Yakima River is currently investigating the potential conservation technique of reconditioning kelts. (BPA Project 200001700). A proposal for this project is available at the Columbia Basin Fish and Wildlife Authority

website:<http://www.cbfwf.org/files/province/systemwide/projects/200001700.htm>

While reconditioned kelts have been tracked back to spawning habitat and observed spawning, no information exists on the success of their spawning in producing viable offspring or subsequent adults. The relative reproductive success of reconditioned kelts spawning in the wild compared to natural-origin adults, hatchery-origin adults, and cross matings of these three variants is of interest to understand the potential benefits of enhancing iteroparity. In addition, questions exist about the potential genetic consequences to small populations that may result from expanding the proportion of repeat-spawning steelhead, and warrants further study and analysis.

Specifics of needed research: Studies are sought from qualified individuals or groups to conduct a scientifically sound study to determine the relative reproductive success of reconditioned steelhead kelts spawning in the wild compared to natural-origin adults, hatchery-origin adults, and cross matings of these three variants, in one or more populations. Proposals are encouraged to employ the use of microsatellite DNA analysis in order to ascertain the pedigree of resulting progeny and subsequent returning adult steelhead. Other methods may be acceptable if they can provide quantification of reproductive success of equal or better power than microsatellite DNA analysis. The study should include analysis of the potential genetic consequences of repeat-spawning steelhead on small populations. Other research topics, which should be addressed in the proposed study if possible, include: how increasing iteroparity might increase inbreeding in the target population, particularly if it is small; how reconditioning kelts might increase domestication selection in the target population; and how the reconditioning program might alter age structure and life history structure in the target population. Research site(s) must offer the ability to capture and sample sufficient outmigrating offspring and all, or nearly all, returning adult steelhead. Proposed studies should be directly applicable to one or more of the following listed ESUs: Upper Columbia, Mid-Columbia, and Snake River steelhead. Cost-effectiveness (e.g., the ability to take advantage of existing fish production, research, monitoring or evaluation activities) will be an important consideration in the proposal selection process.

Timeframe for completion of work: Proponents should provide a schedule of the proposed work, from start-up to completion with submittal.

Level of Effort: Anticipated cost for a study at the general desired level of effort is \$400,000 to \$650,000 per year. Proponents are encouraged to make maximum use of existing fish production, research, monitoring, or evaluation facilities to keep costs low.

2.4 ENVIRONMENTAL / PERMITTING CONSIDERATIONS

NEPA requires federal agencies to consider the environmental consequences of major federal actions that may significantly affect the human environment. BPA will have sole discretion to decide the level of environmental review required. In some instances state or local permits may be required. To the extent practicable, BPA will cooperate in preparing any document that might also be used to satisfy local or state requirements.

BPA will fund the NEPA process required for this program, but the applicant will be expected to cooperate in the process. Actions under this program must also comply with the Endangered Species Act. Normally this would require consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. The projects must fulfill any commitments or obligations in the NEPA or ESA compliance documents and meet any other limitations imposed by permitting agencies.

3. RESPONSE FORMAT

3.1 INTRODUCTION

This section contains the instructions for preparing the response. The response must be bound or stapled. Five paper copies must be submitted, as well as an electronic copy. The response must be organized and have the requested information in the sequence presented below. Sections should be identified as given below. Additional subsections may be defined if they will help present and identify important material. If a requested item is not known or is not applicable, so state in that section of the response. Relevant documents may be cited, but copies are not expected to be included as part of the response at this time unless specifically requested.

Responses must be typed single space on 8.5x11 inch paper, may be printed double-sided, and must have pages numbered. Responses must also be submitted as computer files in Adobe Portable Document format (pdf) or Microsoft Office compatible (such as Word). The computer files should be submitted on a CD or emailed to: jcgislason@bpa.gov. Emails must be less than 3 Megabytes in size.

If more than one response is submitted by an applicant, each response must be submitted as a separate document that includes all of the requested information. A minimum set of mandatory information is required to ensure an adequate description of the proposed project. A prescribed format for the response is given to facilitate preparation and evaluation.

The merits of a response depend on: (1) how well the response demonstrates understanding of and meets BPA's objectives and requirements; (2) the applicant's qualifications (see below); and (3) the applicant's responsiveness to the criteria set forth in this solicitation. Additional material may be presented beyond that requested only if it is necessary for clarification of the response. Elaborate responses, lengthy discussions, and non-critical attachments are discouraged.

Submittals that do not meet the requirements of this section may be considered nonresponsive.

3.2 COVER / TITLE PAGE

State the name of the applicant, the company name (if applicable), the person responsible for response preparation (if different from the applicant), and the date. The cover page should include a title line indicating which Action the proposal is addressing.

3.3 PROJECT / PROGRAM SUMMARY

Provide a summary of your proposal. The summary should be brief yet inclusive enough to portray the principal features.

3.4 PROJECT / PROGRAM DESCRIPTION

Describe the response in detail. Include a thorough discussion of how the response meets the criteria identified throughout the RFCS. The response should identify which of the Actions it is addressing, and should be tailored toward the specific criteria applicable to that Action and identified in Sections 2. If the applicant wishes to submit a proposal addressing more than one Action, separate proposals should be submitted, and each should contain a full application package responding to all of the requirements of this RFCS. Each response should include a detailed statement of work and timeline.

3.5 QUALIFICATIONS OF PARTICIPANTS

- Include background information indicating why the applicant is qualified to respond to the RFCS.
- Identify key personnel organizations responsible for implementing the response. Identify the scope of responsibility of the personnel. Include a brief description of the relevant experience of the key personnel.
- If the response includes citation to past successful projects implemented by the applicant, provide contacts and references (with name, title, address, telephone,

and fax numbers) knowledgeable about that project and the applicant's role in implementation.

- Discuss any existing or planned relationships with other governmental and/or non-governmental organizations, including not-for-profit and private corporations.
- A resume or curriculum vitae may not be substituted in lieu of the information required above.

4. RESPONSE EVALUATIONS AND SELECTION

4.1 RESPONSE EVALUATION PROCESS

Each response received on time will be reviewed and evaluated by BPA.

Responses will be screened to determine if they contain the requested information in the required format. Responses that meet these criteria will be designated responsive and proceed to the next level of evaluation.

Responses will be evaluated and ranked according to the following criteria:

1. Compliance with the threshold criteria. Responses that do not satisfy the threshold criteria will not receive further consideration.
2. Compatibility with the requirements identified in Section 2 as applicable. Responses that are not compatible with BPA's preferences may not receive further consideration.
3. The degree to which the response meets the goals of the RFCS.
4. Demonstrated capacity or ability to successfully implement the response.
5. Environmental and other legal / policy considerations.
6. BPA's past experience with the applicant, if any, and the experiences of others (i.e. credible references of the applicant).

BPA may determine that the threshold requirements have been met but that additional information is needed to fully evaluate a response. BPA may seek information or required

details from the applicant in the form of additional written material or oral presentation that will expand upon the original material.

4.2 SELECTION AND AWARD PROCESS

All applicants will be notified by mail of their success by **May 9, 2003**.

If no responses to this solicitation are deemed satisfactory, BPA may return all responses and issue a new solicitation. Unsuccessful applicants may submit a new application in the event that BPA issues a new solicitation. For those studies that are determined to adequately address the identified needs described above, applicants will be asked to provide a detailed budget associated with the proposed study, and submit to BPA for further negotiation and subsequent implementation through a contract on approximately June 2003.